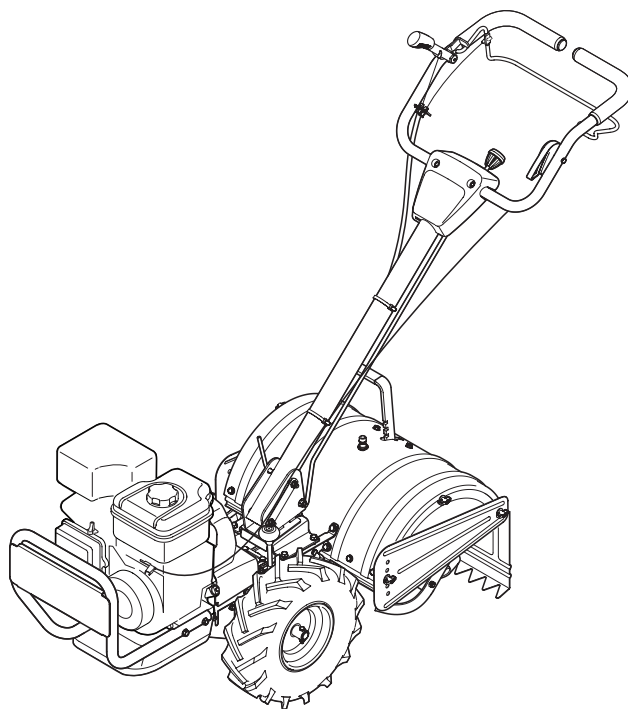


# *Cub Cadet*®

## OPERATOR'S MANUAL



### Rear Tine Tiller — RT-75

#### **⚠ WARNING**

**READ AND FOLLOW ALL SAFETY RULES AND INSTRUCTIONS IN THIS MANUAL  
BEFORE ATTEMPTING TO OPERATE THIS MACHINE.  
FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.**

---

CUB CADET LLC, P.O. BOX 361131 CLEVELAND, OHIO 44136-0019

---

## Thank You

Thank you for purchasing a Cub Cadet garden tiller. It was carefully engineered to provide excellent performance when properly operated and maintained.

Please read this entire manual prior to operating the equipment. It instructs you how to safely and easily set up, operate and maintain your machine. Please be sure that you, and any other persons who will operate the machine, carefully follow the recommended safety practices at all times. Failure to do so could result in personal injury or property damage.

All information in this manual is relative to the most recent product information available at the time of printing. Review this manual frequently to familiarize yourself with the machine, its features and operation. Please be aware that this Operator's Manual may cover a range of product specifications for various models. Characteristics and features discussed and/or illustrated in this manual may not be applicable to all models. We reserve the right to change product specifications, designs and equipment without notice and without incurring obligation.

If applicable, the power testing information used to establish the power rating of the engine equipped on this machine can be found at [www.opei.org](http://www.opei.org) or the engine manufacturer's web site.

If you have any problems or questions concerning the machine, phone your local Cub Cadet dealer or contact us directly. Cub Cadet's Customer Support telephone numbers, website address and mailing address can be found on this page. We want to ensure your complete satisfaction at all times.

Throughout this manual, all references to *right* and *left* side of the machine are observed from the operating position

The engine manufacturer is responsible for all engine-related issues with regards to performance, power-rating, specifications, warranty and service. Please refer to the engine manufacturer's Owner's/Operator's Manual, packed separately with your machine, for more information.

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## Record Product Information

Before setting up and operating your new equipment, please locate the model plate on the equipment and record the information in the provided area to the right. You can locate the model plate by standing at the operator's position and looking down at the rear of the deck. This information will be necessary, should you seek technical support via our web site or with your local Cub Cadet dealer.

### MODEL NUMBER

--	--	--	--	--	--	--	--	--	--	--	--

### SERIAL NUMBER

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## Product Registration and Customer Support

Please register your product on our website, [www.cubcadet.com](http://www.cubcadet.com).

If you have difficulty assembling this product or have any questions regarding the controls, operation, or maintenance of this machine, you can seek help from the experts. Choose from the options below:

- ◇ Visit us on the web at [www.cubcadet.com](http://www.cubcadet.com)



See How-to Maintenance and Parts Installation Videos at [www.cubcadet.com/tutorials](http://www.cubcadet.com/tutorials)

- ◇ Call a Customer Support Representative at (800) 965-4CUB
- ◇ Locate your nearest Cub Cadet Dealer at (877) 282-8684
- ◇ Write to Cub Cadet LLC • P.O. Box 361131 • Cleveland, OH • 44136-0019



**WARNING!** This symbol points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate this machine. Failure to comply with these instructions may result in personal injury. When you see this symbol. **HEED ITS WARNING!**

## CALIFORNIA PROPOSITION 65



**WARNING!** Engine Exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to State of California to cause cancer and birth defects or other reproductive harm.



**WARNING!** Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. *Wash hands after handling*



**DANGER!** This machine was built to be operated according to the safe operation practices in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. This machine is capable of amputating fingers, hands, toes and feet. Failure to observe the following safety instructions could result in serious injury or death.

## Training

1. Read, understand, and follow all instructions on the machine and in the manual(s) before attempting to assemble and operate. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Be familiar with all controls and their proper operation. Know how to stop the machine and disengage them quickly.
3. Never allow children under 14 years of age to operate this machine. Children 14 and over should read and understand the instructions and safe operation practices in this manual and on the machine and be trained and supervised by an adult.
4. Never allow adults to operate this machine without proper instruction.
5. Keep the area of operation clear of all persons, particularly small children and pets. Stop machine if anyone enters the area.
2. Wear sturdy, rough-soled work shoes and close fitting slacks and shirt. Loose fitting clothes or jewelry can be caught in moving parts. Never operate this machine in bare feet or sandals.
3. Disengage clutch levers and shift (if provided) into neutral ("N") before starting the engine.
4. Never leave this machine unattended with the engine running.
5. Never attempt to make any adjustments while engine is running, except where specifically recommended in the operator's manual.

## Safe Handling of Gasoline:

To avoid personal injury or property damage use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Serious personal injury can occur when gasoline is spilled on yourself or your clothes which can ignite. Wash your skin and change clothes immediately.

- a. Use only an approved gasoline container.
- b. Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.

## Preparation

1. Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks, wire, and other foreign objects which could be tripped over and cause personal injury.

- c. When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
  - d. Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
  - e. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
  - f. Never fuel machine indoors.
  - g. Never remove gas cap or add fuel while the engine is hot or running. Allow engine to cool at least two minutes before refueling.
  - h. Never over fill fuel tank. Fill tank to no more than ½ inch below bottom of filler neck to allow space for fuel expansion.
  - i. Replace gasoline cap and tighten securely.
  - j. If gasoline is spilled, wipe it off the engine and equipment. Move unit to another area. Wait 5 minutes before starting the engine.
  - k. To reduce fire hazards, keep machine free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage and remove any fuel soaked debris.
  - l. Never store the machine or fuel container inside where there is an open flame, spark or pilot light as on a water heater, space heater, furnace, clothes dryer or other gas appliances.
11. After striking a foreign object, stop the engine, disconnect the spark plug wire and ground against the engine. Thoroughly inspect the machine for any damage. Repair the damage before starting and operating.
  12. Disengage all clutch levers (if fitted) and stop engine before you leave the operating position (behind the handles). Wait until the tines come to a complete stop before unclogging the tines, making any adjustments, or inspections.
  13. Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.
  14. Muffler and engine become hot and can cause a burn. Do not touch.
  15. Use caution when tilling near fences, buildings and underground utilities. Rotating tines can cause property damage or personal injury.
  16. Do not overload machine capacity by attempting to till soil too deep at too fast of a rate.
  17. If the machine should start making an unusual noise or vibration, stop the engine, disconnect the spark plug wire and ground it against the engine. Inspect thoroughly for damage. Repair any damage before starting and operating.
  18. Keep all shields, guards, and safety devices in place and operating properly.
  19. Never pick up or carry machine while the engine is running.
  20. Use only attachments and accessories approved by the manufacturer. Failure to do so can result in personal injury.
  21. If situations occur which are not covered in this manual, use care and good judgement. Contact Customer Support for assistance and the name of you nearest servicing dealer..

## Operation

1. Do not put hands or feet near rotating parts. Contact with the rotating parts can amputate hands and feet.
2. Do not operate machine while under the influence of alcohol or drugs.
3. Never operate this machine without good visibility or light. Always be sure of your footing and keep a firm hold on the handles.
4. Keep bystanders away from the machine while it is in operation. Stop the machine if anyone enters the area.
5. Be careful when tilling in hard ground. The tines may catch in the ground and propel the tiller forward. If this occurs, let go of the handle bars and do not restrain the machine.
6. Exercise extreme caution when operating on or crossing gravel surfaces. Stay alert for hidden hazards or traffic. Do not carry passengers.
7. Never operate the machine at high transport speeds on hard or slippery surfaces.
8. Exercise caution to avoid slipping or falling.
9. Look down and behind and use care when in reverse or pulling machine towards you.
10. Start the engine according to the instructions found in this manual and keep feet well away from the tines at all times.

## Maintenance & Storage

1. Keep machine, attachments and accessories in safe working order.
2. Allow a machine to cool at least five minutes before storing. Never tamper with safety devices. Check their proper operation regularly.
3. Check bolts and screws for proper tightness at frequent intervals to keep the machine in safe working condition. Also, visually inspect machine for any damage.
4. Before cleaning, repairing, or inspecting, stop the engine and make certain the tines and all moving parts have stopped. Disconnect the spark plug wire and ground it against the engine to prevent unintended starting.
5. Do not change the engine governor settings or over-speed the engine. The governor controls the maximum safe operating speed of engine.
6. Maintain or replace safety and instruction labels, as necessary.
7. Follow this manual for safe loading, unloading, transporting, and storage of this machine.
8. Always refer to the operator's manual for important details if the machine is to be stored for an extended period.

9. If the fuel tank has to be drained, do this outdoors.
10. Observe proper disposal laws and regulations for gas, oil, etc. to protect the environment.
11. According to the Consumer Products Safety Commission (CPSC) and the U.S. Environmental Protection Agency (EPA), this product has an *Average Useful Life* of seven (7) years, or 130 hours of operation. At the end of the *Average Useful Life* have the machine inspected annually by an authorized service dealer to ensure that all mechanical and safety systems are working properly and not worn excessively. Failure to do so can result in accidents, injuries or death.

## Notice Regarding Emissions

Engines which are certified to comply with California and federal EPA emission regulations for SORE (Small Off Road Equipment) are certified to operate on regular unleaded gasoline, and may include the following emission control systems: Engine Modification (EM), Oxidizing Catalyst (OC), Secondary Air Injection (SAI) and Three Way Catalyst (TWC) if so equipped.

## Spark Arrestor



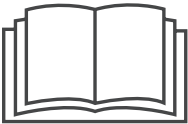





**WARNING!** This machine is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brushcovered or grass-covered land unless the engine's exhaust system is equipped with a spark arrestor meeting applicable local or state laws (if any).

If a spark arrestor is used, it should be maintained in effective working order by the operator. In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands.

A spark arrestor for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 361131 Cleveland, Ohio 44136-0019.

## Safety Symbols

This page depicts and describes safety symbols that may appear on this product. Read, understand, and follow all instructions on the machine before attempting to assemble and operate.

Symbol	Description
	<b>READ THE OPERATOR'S MANUAL(S)</b> Read, understand, and follow all instructions in the manual(s) before attempting to assemble and operate
	<b>WARNING— ROTATING TINES</b> Do not put hands or feet near rotating parts. Contact with the rotating parts can amputate hands and feet.
	<b>WARNING— ROTATING TINES</b> Do not put hands or feet near rotating parts. Contact with the rotating parts can amputate hands and feet.
	<b>WARNING—GASOLINE IS FLAMMABLE</b> Allow the engine to cool at least two minutes before refueling.
	<b>WARNING— CARBON MONOXIDE</b> Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.
	<b>WARNING— HOT SURFACE</b> Engine parts, especially the muffler, become extremely hot during operation. Allow engine and muffler to cool before touching.



**WARNING!** Your Responsibility—Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine.

**SAVE THESE INSTRUCTIONS!**

## Contents of Carton

- One Tiller
- One Handlebar Assembly
- One Bottle of Engine Oil
- Two Cable Ties
- One Operator's Manual
- One Engine Operator's Manual

**NOTE:** Reference to the right or left side of the tiller is determined from the operator's position behind the machine. All exceptions will be noted.



**WARNING!** To prevent personal injury or property damage, do not start the engine until all assembly steps are complete and you have read and understand the Safe Operation Practices Section and the Operating Section in this manual.

## Assembly

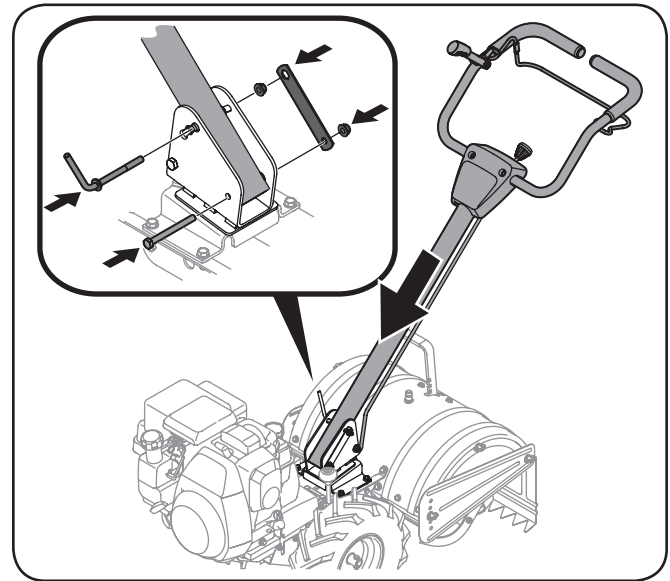
### Unpacking Instructions

1. Remove the staples, break the glue on the top flaps, or cut the tape at the end of the carton and peel along the top flap to open carton.
2. Remove the loose parts included with the tiller (i.e., Operator's Manual, etc.).
3. Cut the corners and lay the carton down flat.
4. Remove the packing materials.
5. Roll or slide the tiller out of the carton. Check the carton thoroughly for loose parts.
6. Extend the control cable and lay it on the floor. Be careful not to bend or kink the control cable.

**NOTE:** This tiller is shipped without gasoline or oil in the engine. Be certain to service engine with gasoline and oil as instructed in the separate Engine Operator's Manual before operating your machine.

### Handle

1. Remove the hex screw, handle crank adjuster, retainer bracket and flange lock nuts from the handle mounting brackets. See Figure 3-1.



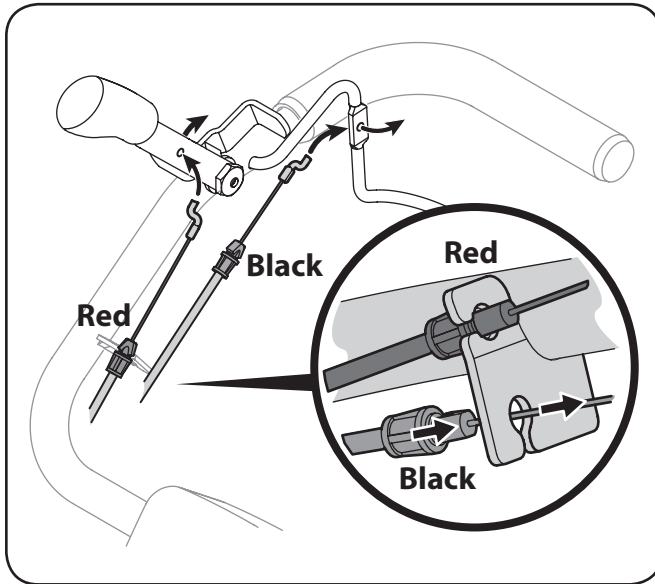
**Figure 3-1**

2. Place the handle assembly in position between the handle bracket. See Figure 3-1.
3. Line up the holes in the handle with the holes in the bracket and secure it with hardware previously removed.

## Forward & Reverse Clutch Cables

To attach the cables, follow these steps:

1. Route the forward (black) clutch cable along the handle assembly on the right-hand side. See Figure 3-2.



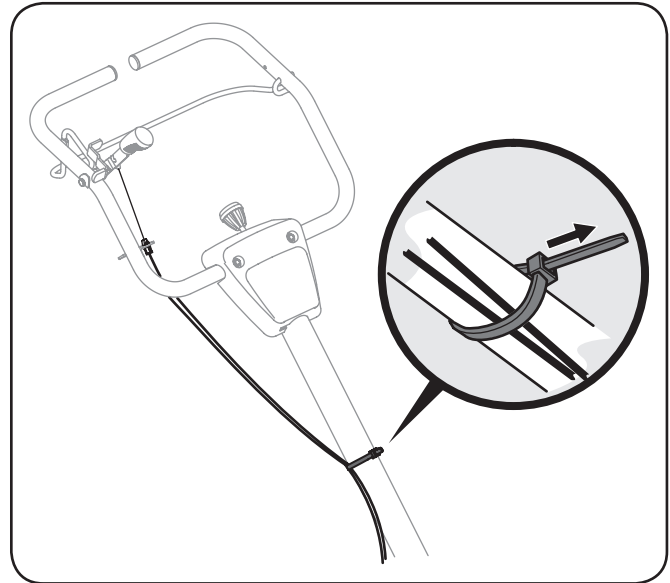
**Figure 3-2**

2. Connect the forward clutch cable to the forward clutch bail by feeding the z-hook through the hole on the bail from the outside towards the inside. See Figure 3-2.
3. Snap the cable housing clips into the handle assembly cable mount as shown in Figure 3-2. The clip feeds into the lower position on the handle assembly. See Figure 3-2.

**NOTE:** To test the function of the forward clutch bail, lift the bail to the handle and release it. The bail should return to its neutral position. If it doesn't, contact your local dealer for technical assistance.

4. Route the reverse (red) clutch cable along the handle assembly on the right-hand side. See Figure 3-2.
5. Connect the reverse clutch cable to the reverse clutch handle by feeding the z-hook through the hole on the handle from the inside towards the outside. See Figure 3-2.
6. Snap the cable housing clips into the handle assembly cable mount as shown in Figure 3-2. The clip feeds into the upper position on the handle assembly.

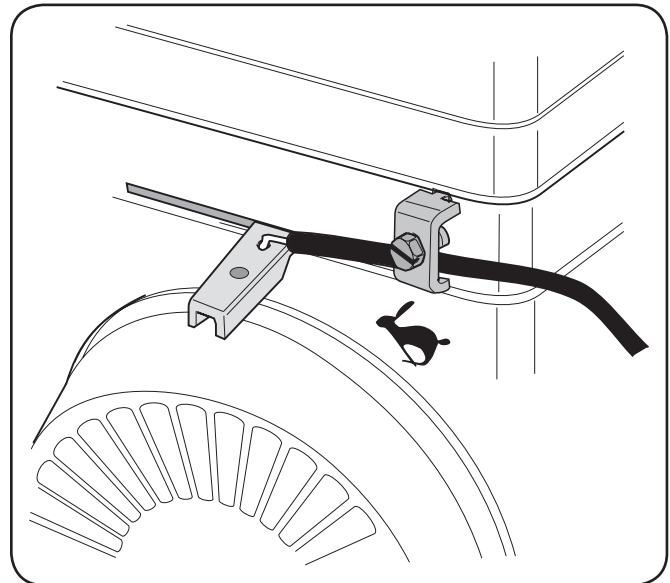
7. Using a cable tie secure the two cables onto the handle about mid-way down the shaft. See Fig. 1-3.




**Figure 3-3**

## Throttle Cable

1. Remove the casing clamp and screw from the front left of the engine and hook the throttle cable into the throttle as shown in Figure 3-4.



**Figure 3-4**

2. Reinstall the casing clamp and screw but do not fully tighten the screw yet.
3. Slide the throttle lever all the way into the RUN  position then fully tighten the screw to secure the throttle cable in place.



- Secure the throttle cable to the handle with a cable tie as shown in Figure 3-5.

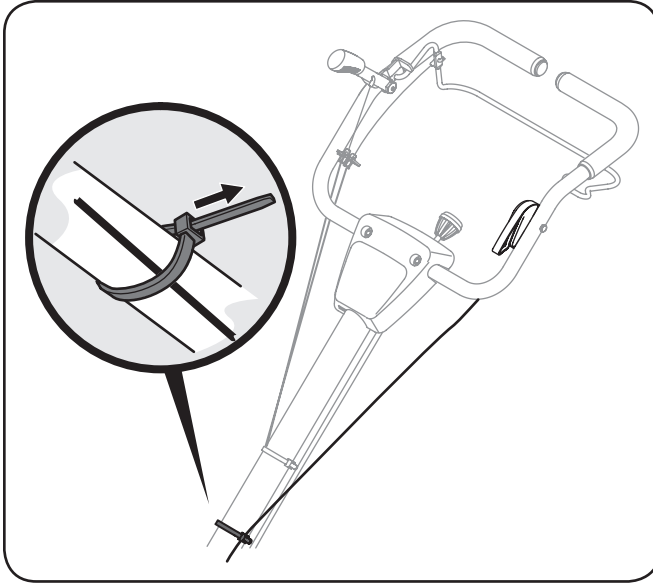


Figure 3-5

### Handle Pivot Control Rod

- Secure the handle pivot rod control onto the swing handle link using the two thrust washers and cotter pins as shown in Figure 3-6.

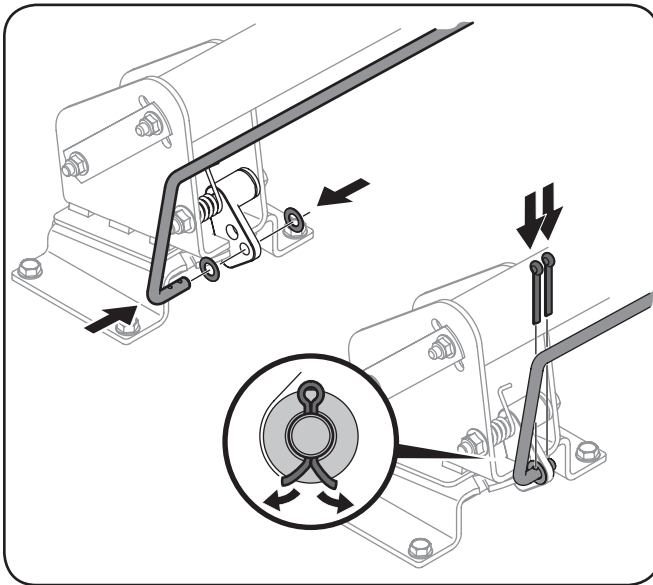


Figure 3-6

- Once in place, secure the handle by bending the cotter pins outward.

## Set-Up

### Tires

The tires on the tiller may be over-inflated for shipping purposes. Reduce the tire pressure before operating the tiller. Recommended operating tire pressure is approximately 20 PSI (check the sidewall of the tire for the manufacturer's recommended pressure). Be sure that both tires are inflated equally or the tiller will pull to one side.

### Gas & Oil Fill-Up

Service the engine with gasoline and oil as instructed in the separate Engine Operator's Manual packed with your tiller. Read the instructions carefully.



**WARNING!** Use extreme care when handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Never fuel the machine indoors or while the engine is hot or running.

## Adjustments

### Handle

The handle should be adjusted so that when the tiller is digging 3-4" into the soil, the handle falls to about waist-high. Rotate the handle adjustment lock rearward, move the handle to the desired position and then lock into place by rotating the handle adjustment lock forward to secure the handle. See Figure 3-7.

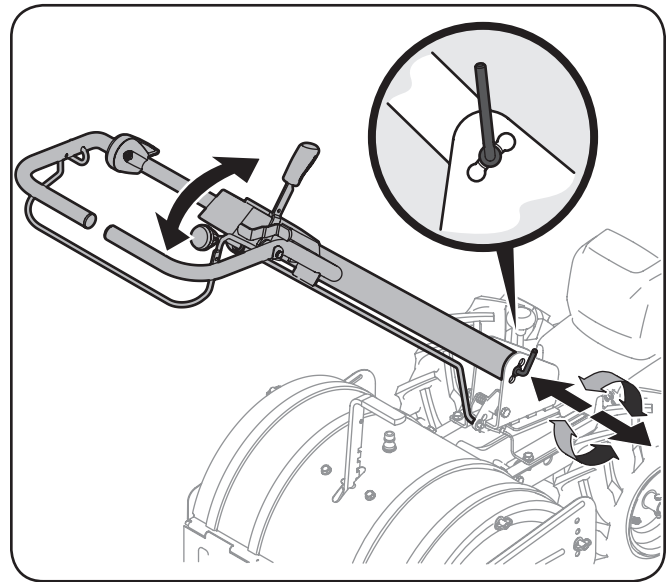
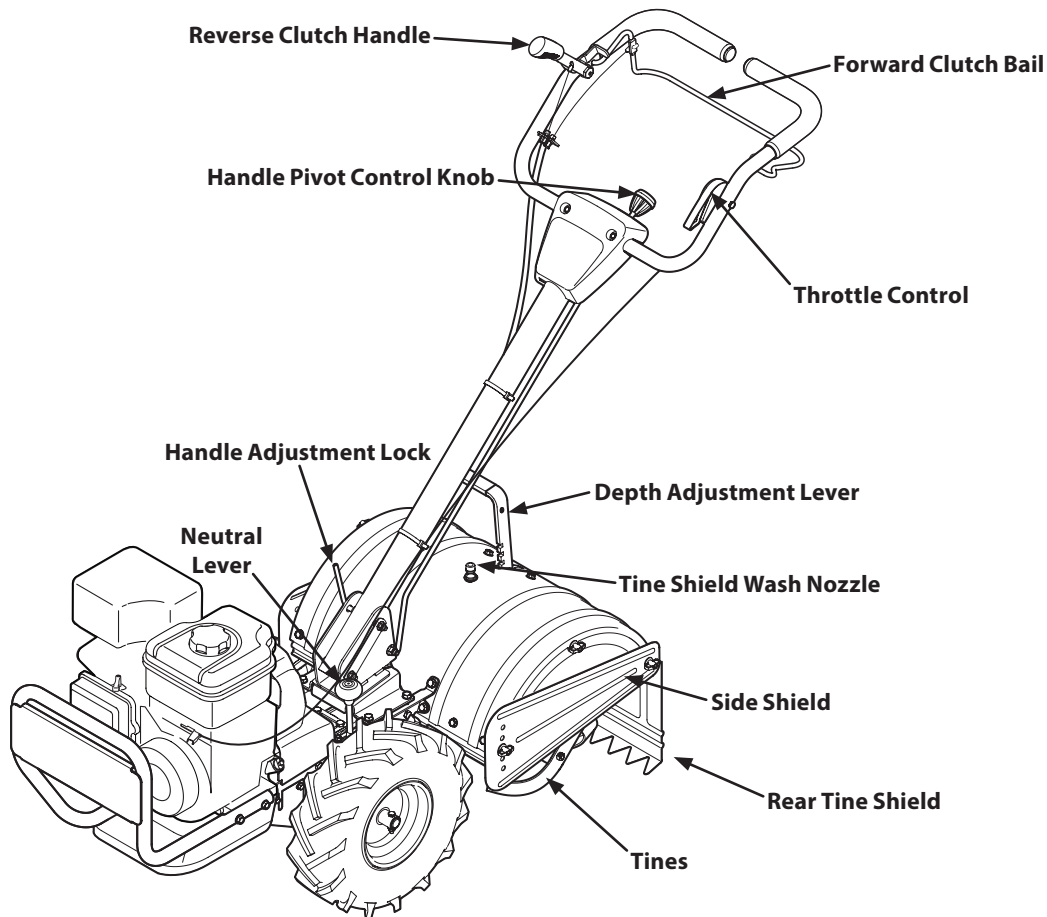


Figure 3-7



**WARNING!** Before operating your machine, carefully read and understand all safety, controls and operating instructions in this manual and on the decals on the machine. Failure to follow these instructions can result in serious personal injury.



## Forward Clutch Bail

The forward clutch bail is located on the upper handle and controls the engagement of the forward drive of the wheels and engages the tines. See the Operation section for more information on using the forward clutch bail.

## Reverse Clutch Handle

The reverse clutch handle is located on the right side of the upper handle and controls the engagement of the rearward drive of the wheels and engages the tines. See the Operation section for more information on using the reverse clutch handle.

## Throttle Control

The throttle control is located on the inside, left of the upper handle and controls the engine speed. Push the throttle control forward to increase the engine speed. The tiller is designed to be operated with the throttle in the RUN  (full throttle) position. Pull the throttle back to decrease the engine speed and all the way back to the STOP  position to stop the engine.



## Depth Adjustment Lever

This lever controls the tilling depth of the tines. Pull the lever back and slide it up or down to engage the notched height settings. See the Operation section for more information on using the depth adjustment lever.

## Handle Adjustment Lever

The handle adjustment lever is used to adjust the handle height and is adjustable to three different settings. In general, adjust the handlebars so they are at waist level when the tines are 3-4" in the ground. See the Assembly & Set-Up section for more information on the handle adjustment Lever.

## Rear Tine Shield

The rear tine shield protects the operator from flying debris while also smoothing out freshly tilled soil.

## Side Shield

The side shields are located on the right and left sides of the tine shield and can be used with the depth adjustment lever to control tilling depth. See the Operation section for more information on using the side shields.

## Tines

The tines are a series of hoes arranged on a revolving power-driven shaft.

## Neutral Lever

The neutral lever allows the wheels to be positioned in either a drive or a neutral/freewheel mode. See the Operation section for more information on using the neutral lever.

## Handle Pivot Control Knob

The handle pivot control knob is located on the upper handle and in the center of the handle. The knob is used to pivot the handle to one of three positions. See the Operation section for more information on using the handle pivot control knob.

## Tine Shield Wash Nozzle

The tine shield wash nozzle is located on top of the tine shield. The nozzle can be attached to a hose and used to clean dirt and debris out of the tines and the inside of the tine shield. See the Maintenance & Adjustments section for more information on the tine shield wash nozzle.

## Starting the Engine



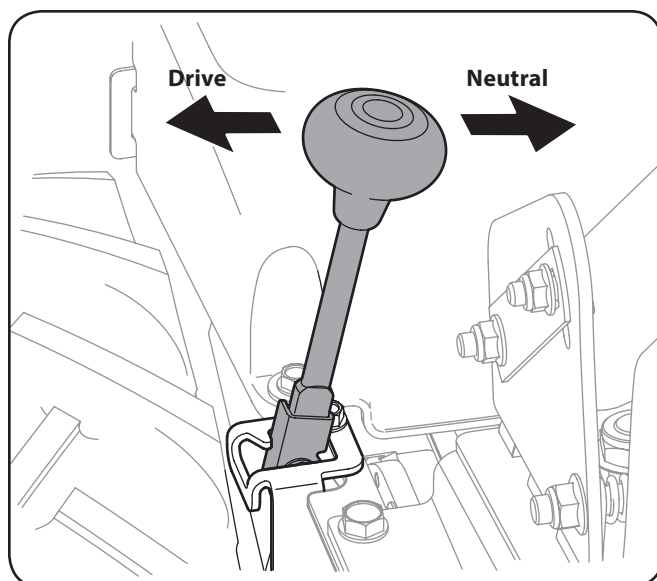
**WARNING!** Read, understand, and follow all instructions and warnings on the machine and in this manual before operating.

**NOTE:** When pushing the tiller with the engine off, you will hear a ratcheting sound or gear noise; this is normal.




**WARNING!** Be sure no one is standing in front of the tiller while the engine is running or being started.

1. Place the neutral lever in the NEUTRAL position by pulling back on the neutral lever and moving it to the right. See Figure 5-1.



**Figure 5-1**

2. Move the throttle control into the run  position and follow the instructions in the Engine Operator's manual to start the engine.

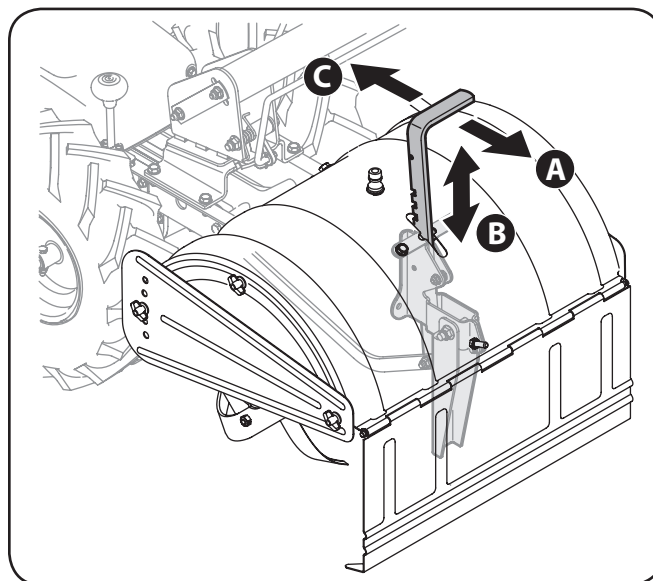
## Stopping the Engine

To stop the engine place the throttle in the STOP  position and refer to the Engine Operator's Manual.

## Setting The Depth

Tilling depth is controlled by the depth stake which can be adjusted to seven different settings. Adjust the side shields as you adjust the depth stake.

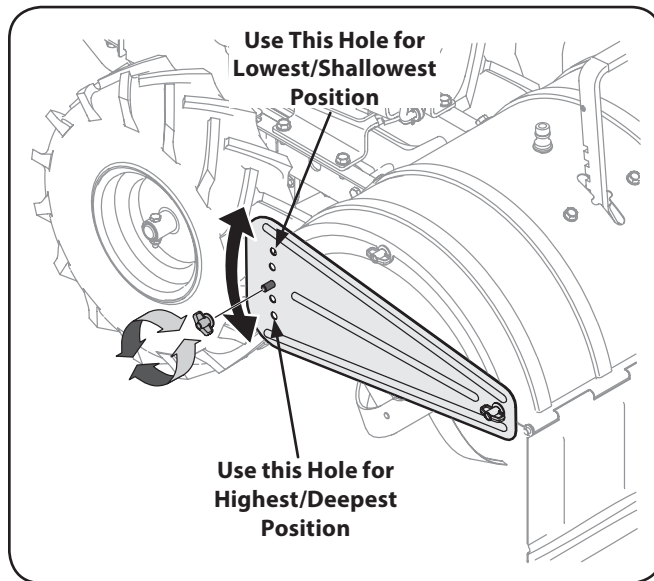
1. Pull back on the depth adjustment lever (a), move the lever up or down into the desired tilling depth (b) and move back forward to lock into place (c). See Figure 5-2.



**Figure 5-2**

2. When using the tiller for the first time, use the second adjustment slot from the top. See Figure 5-2.

3. To adjust the side shields, remove the wing nuts. Move the side shield to the desired position and replace the wing nuts. Tighten securely. See Figure 5-1.



**Figure 5-3**

4. When breaking up sod and for shallow cultivation, use the second slot from the top. Place the side shields in their lowest position. See Figure 5-3.
5. For further depth, raise the depth adjustment lever and side shields and also make one or two more passes over the area.
6. When tilling loose soil, the depth adjustment lever may be raised to its highest position (use the bottom adjustment slot) to give the deepest tilling depth. Raise the side shields to their highest position.
7. To transport the tiller, lower the depth stake and use the top adjustment slot.

## Operating the Tiller

1. Select the depth adjustment lever setting.
2. Start the engine as instructed on the previous page.
3. Move the neutral lever into the drive position.



**WARNING!** Do not move the neutral lever into drive with the tines engaged. Make certain the tiller is stopped completely before placing tiller in drive. A partial engagement may be necessary when engaging tines.

4. To shift into forward wheels and tine drive, slowly engage the forward clutch bail allowing the gears to synchronize. To stop forward movement and tine drive, release the forward clutch bail. Do not shift from neutral to drive or drive to neutral with the forward clutch bail engaged.

5. Squeeze the clutch handle against the handle to engage the wheels and tines.



**WARNING!** Do not push down on the handles so that the wheels are lifted off the ground while using the tine drive, or the tiller could move backward and cause personal injury.

6. For best results, it is recommended the garden be tilled twice (lengthwise, then width-wise) to pulverize the soil.

### To move in reverse: (Do not till in reverse)

1. Release the forward clutch bail. Then lift the handlebar until the tines are off the ground.
2. Pull back on the reverse clutch handle and walk backwards with the machine.

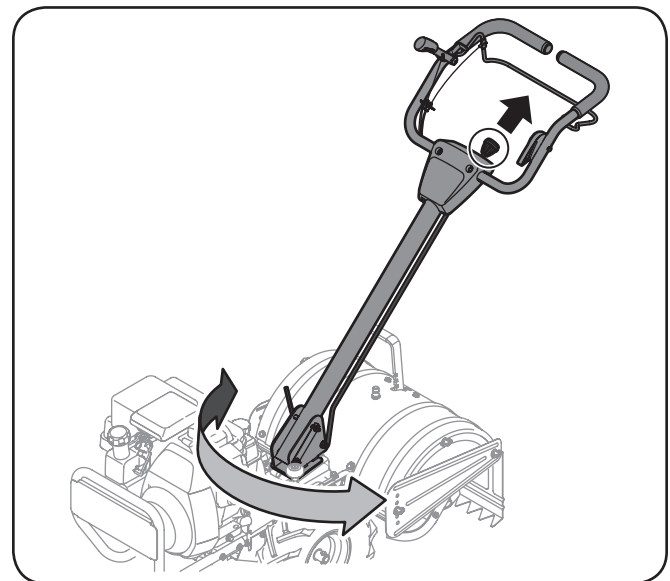
## Turning the tiller

### MANUALLY

1. Practice turning the tiller in a level, open area. Be very careful to keep your feet and legs away from the tines.
2. To begin a turn, lift the handlebars until the tines are out of the ground and the engine and tines are balanced over the wheels.
3. With the tiller balanced, push sideways on the handlebar to steer in the direction of the turn. After turning, slowly lower the tines into the soil to resume tilling.

### USING THE SWING LEVER

1. The tiller handle can be swivelled in either direction. The pivot control handle enables the tiller to be guided sideways to the next row. See Figure 5-4.



**Figure 5-4**

2. Pull up on the handle pivot control knob to release the handle.
3. Swivel the handle into the desired position.
4. Release the handle pivot control knob to secure the handle in place.



**WARNING!** Disconnect the spark plug wire and ground it against the engine before performing any maintenance or repairs.

## Maintenance

### Engine

Refer to the separate Engine Operator's Manual for engine maintenance instructions.

### Tires

Recommended operating tire pressure is approximately 20 p.s.i. on 16" tires. (Check the sidewall of the tire for the manufacturer's recommended pressure). Maximum tire pressure under any circumstances is 30 p.s.i. Equal tire pressure should be maintained on both tires.



**WARNING!** Excessive pressure (over 30 p.s.i.) when seating beads may cause the tire/rim assembly to burst with force sufficient to cause serious injury.

### Tines

Use the Smart Jet™ to rinse dirt from the tines and the tine shield and prevent the buildup of corrosive chemicals. Complete the following steps right after tilling to prevent dirt from hardening and becoming more difficult to remove:

1. Move the tiller to a level, clear spot on your lawn, near enough for your garden hose to reach.
1. Disengage the tines and stop the engine.
2. Thread the hose coupler onto the end of your garden hose.
3. Attach the hose coupler to the water port on the top of your tine shield. See Figure 6-1.

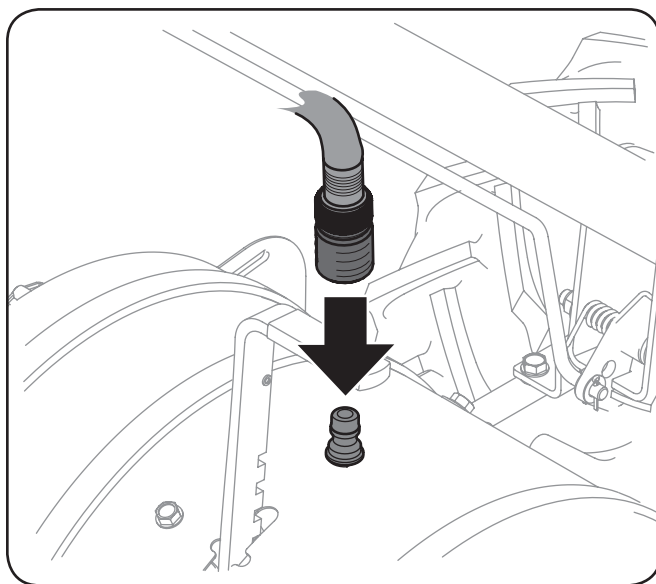




Figure 6-1

4. Place the depth adjustment lever in the the highest position.
5. Place the neutral lever in the neutral position.
6. Turn the water on.
7. While standing in the operator's position behind the tiller, start the engine and place the throttle in the FAST  position.
8. Engage the tines.
9. Remain in the operator's position with the tines engaged for a minimum of two minutes, allowing the underside of the tine shield to thoroughly rinse.
10. Disengage the tines.
11. Place the throttle in the STOP  position to turn the tractor's engine off.
12. Turn the water off and detach the hose coupler from the water port on your tine shield.
13. After cleaning your tines and tine shield with the Smart Jet™ system, return to the operator's position and engage the tines. Keep the tines engaged for a minimum of two minutes, allowing the tines to thoroughly dry.

### Transmission Gear Oil

Check the transmission gear oil after every 30 hours of operation or whenever you notice any oil leak. Operating the tiller when the transmission is low on oil can result in severe damage.

To Check the Transmission Gear Oil Level:

1. Check the gear oil level when the transmission is cool. Gear oil will expand in warm operating temperatures and this expansion will provide an incorrect oil level reading.
2. With the tiller on level ground, pull the depth adjustment lever all the way up.
3. Remove the oil fill plug from the transmission housing and look inside the oil fill hole to locate the main drive shaft situated below the hole. See Figure 6-2.

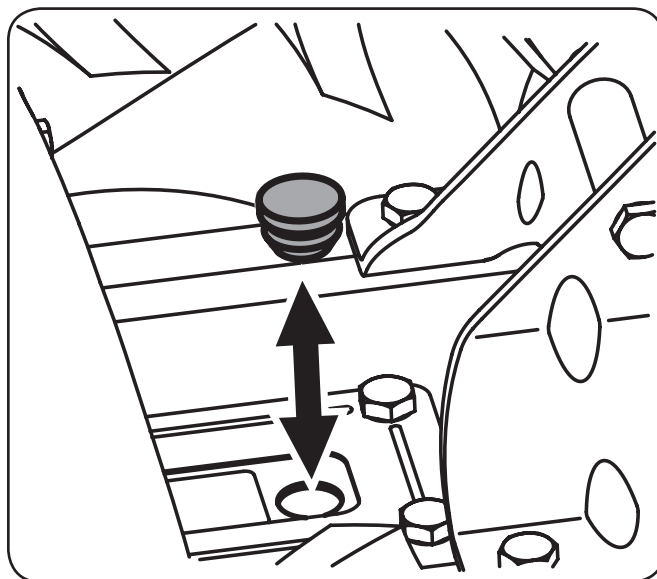


Figure 6-2

4. The gear oil level is correct if the gear oil is approximately halfway up the side of the main drive shaft.
5. If the gear oil level is low, add gear oil as described next. If the gear oil level is okay, securely replace the oil fill plug.
6. If adding only a few ounces of gear oil, use API rated GL-4 or GL-5 gear oil having a viscosity of SAE 140, SAE 85W-140 or SAE 80W-90. If refilling an empty transmission, use only GL-4 gear oil having a viscosity of SAE 85W-140 or SAE 140.
7. While checking frequently to avoid overfilling, slowly add gear oil into the oil fill hole until it reaches the halfway point on the drive shaft.
8. Securely replace the oil fill plug.

## Lubrication

### Clutch Handle

Lubricate the pivot point on the clutch handle and the cable at least once a season with light oil. The control must operate freely in both directions.

### Pivot Points

Lubricate all the pivot points and linkages at least once a season with light oil.

### Tine Shafts

Remove the tine assemblies and lubricate the tine shafts at least once a season.

### Wheel Shafts

Remove the wheel assemblies and lubricate the axle shafts at least once a season.

## Adjustments



**WARNING!** Never attempt to make any adjustments while the engine is running, except where specified in the Operator's Manual.

### Engine Adjustment

Refer to the separate Engine Operator's Manual for engine adjustment instructions.

### Handle

The handle may be adjusted to the desired height. Refer to the Assembly & Set-Up section for details.

## Off-Season Storage

If the tiller will not be used for a period longer than 30 days, the following steps should be taken to prepare the tiller for storage.

- Clean the exterior of the engine and the entire tiller thoroughly. Lubricate the tiller as described in the Lubrication instructions.
- Using a pressure washer to clean your tiller is not recommended. The washer may cause damage to the electric components, spindles, pulleys, bearings or the engine. Using a pressure washers will result in shortened life and reduce serviceability.
- Engines stored between 30 and 90 days need to be treated with a gasoline stabilizer such as **STA-BIL**® and engines stored over 90 days need to be drained of fuel to prevent deterioration and gum from forming in fuel system or on essential carburetor parts. If the gasoline in your engine deteriorates during storage, you may need to have the carburetor, and other fuel system components, serviced or replaced.
- Refer to the Engine Operator's Manual for the additional engine storage instructions.
- Wipe the tines with an oiled rag to prevent rust.
- Store the tiller in a clean, dry area. Do not store next to corrosive materials, such as fertilizer.

**NOTE:** When storing any type of power equipment in an unventilated area or metal storage shed, care should be taken to rustproof the equipment. Using a light oil or silicone, coat the equipment and especially any springs, bearings, and cables.



## Belt Replacement

If the drive belt need to be replaced, it is best to replace both belts at the same time. Use only a factory-authorized belt as an "over- the-counter" belt may not perform satisfactorily. The procedure requires average mechanical ability and commonly available tools.

To replace the Drive and Reverse belts, follow these steps:

1. Make sure the tiller is on a flat surface, with the engine turned off and the spark plug wire unplugged and grounded to prevent unintended firing of the engine.
2. Remove the belt cover as seen in Figure 7-1, by first removing the two hex washer screws and one flat washer. Lift the belt cover up and away from the tiller and set in a safe location until reinstallation.

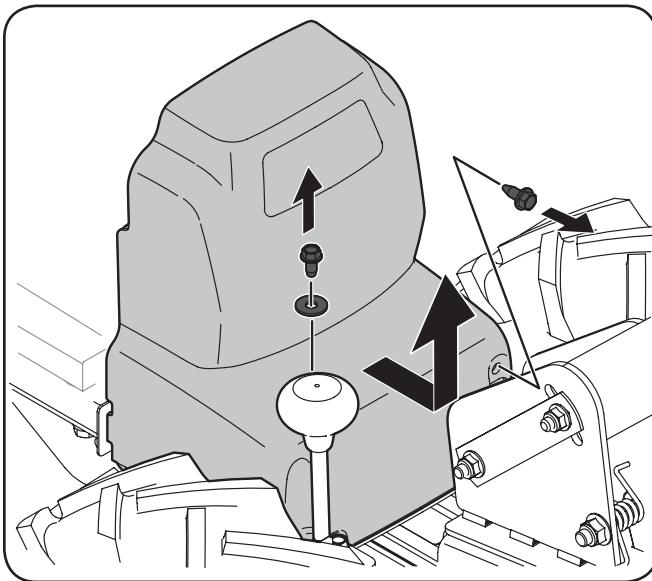


Figure 7-1

3. Remove the four hex washer screws that secure the pulley shield to the frame as seen in Figure 7-2, and remove the pulley shield and set aside in a safe location until reinstallation.

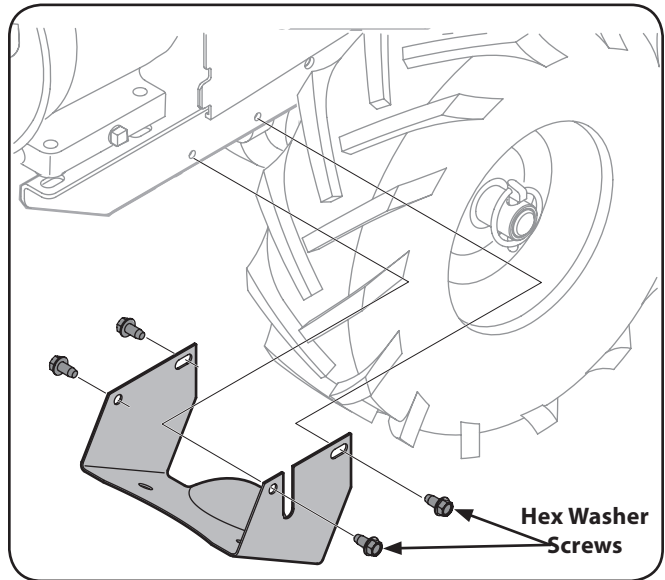


Figure 7-2

4. Remove the idler bracket extension spring from the idler bracket using a pair of needle-nosed pliers. Grab the spring by the end that hooks over the frame, pull it away from the frame, then up and carefully relieve the tension of the spring. See Figure 7-3.

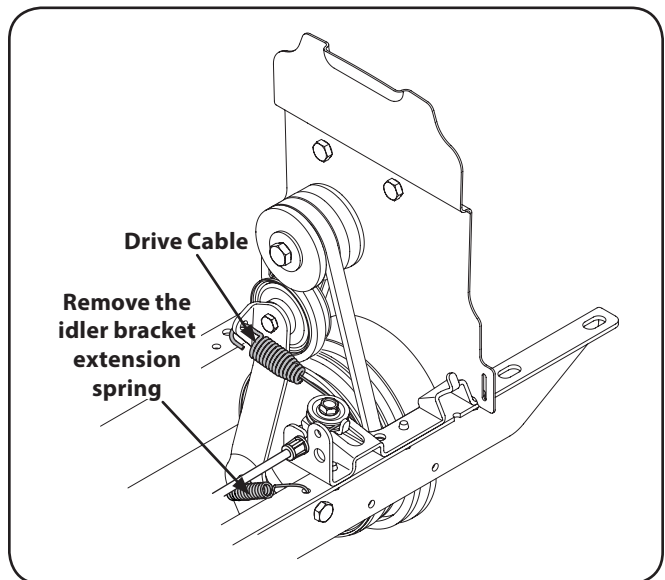


Figure 7-3



5. Unhook the drive cable from the idler bracket. See Figure 7-3.
6. Remove the belt from the transmission, engine and idler pulleys.
7. Replace the old belt with a new belt. Make sure the belt is installed into the pulleys closest to the tines/front of the tiller.
8. Re-install the drive cable on the idler pulley.
9. Carefully re-install the idler bracket extension spring on the idler bracket.
10. Reassemble the tiller in the reverse order in which it was disassembled.

**NOTE:** When reinstalling the belt cover, be sure to engage the bail and hold it so that the drive belt is tight before attempting to reinstall the belt cover. This will enable the belt to fall under the belt keeping mechanism built into the belt cover. Failure to do so could damage the belt and/or belt cover.

**NOTE:** The longer screw goes into the top, forward facing hole in the belt cover.

## Tines

The tines will wear with use and should be inspected at the beginning of each tilling season and after every 30 operating hours. Tines can be replaced individually or as a complete set. Never inspect or service the tines unless the engine is stopped and the spark plug wire is disconnected.

With use, the tines will become shorter, narrower and pointed. Badly worn tines will result in a loss of tilling depth and reduced effectiveness when chopping up and turning under organic matter.

## Removing a Tine Assembly

1. If removing both tine assemblies, mark them "left" and "right" before removal. Doing so will help ensure that the assemblies are reinstalled on the correct sides of the tiller.
2. Remove the clevis pin and cotter pin that secure the tine assembly to the tine shaft. See Figure 7-4. Pull the tine assembly off the shaft. If necessary, use a rubber mallet to tap the tine assembly outward.

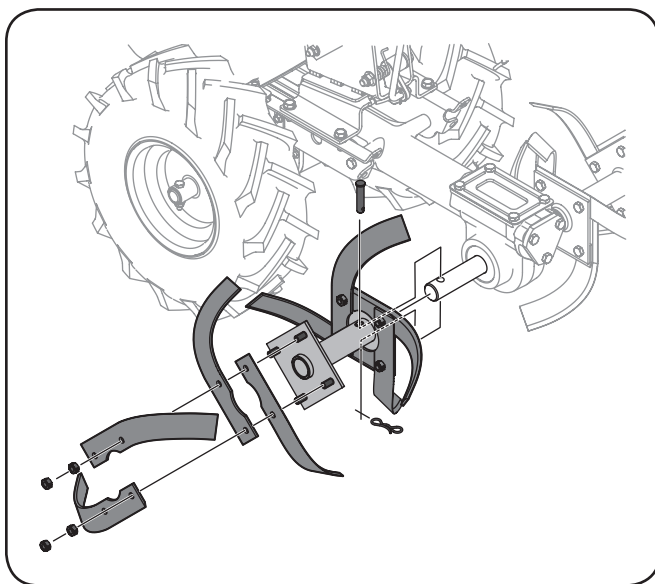


Figure 7-4

3. Before reinstalling the tine assembly, inspect the tine shaft for rust, rough spots or burrs and file or sand as needed. Then apply a thin coat of grease to the shaft.
4. Install each tine assembly so that the cutting edge of the tines will enter the soil first when the tiller moves forward. Secure the tine assembly to the tine shaft using the clevis pin and cotter pin previously removed. Tighten securely.

## Replacing a Single Tine


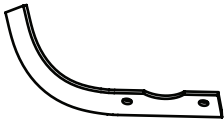
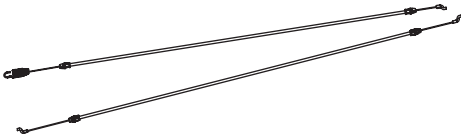
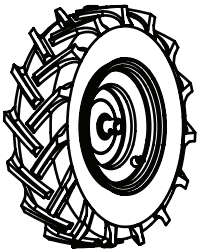


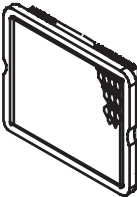
1. Remove the two screws and nuts that attach a single tine to the tine holder. If needed, use penetrating oil to help free the nuts. See Figure 7-4.
2. When installing a single tine, be sure to position it so that its cutting edge will enter the soil first as the tiller moves forward.

## Change Transmission Gear Oil

**NOTE:** The transmission gear oil does not need to be changed unless it has been contaminated with dirt, sand or metal particles.

See an authorized service dealer to have the transmission gear oil changed. Refer to the phone numbers on page 2 of this manual to locate the nearest service dealer.

Problem	Cause	Remedy
Tines do not engage	<ol style="list-style-type: none"> <li>1. Foreign object lodged in tines.</li> <li>2. Tine clevis pin(s) missing.</li> <li>3. Pulley and idler not in correct adjustment.</li> <li>4. Not shifting properly.</li> <li>5. Belt worn and/or stretched.</li> </ol>	<ol style="list-style-type: none"> <li>1. Dislodge foreign object.</li> <li>2. Replace tine clevis pin(s).</li> <li>3. Take tiller to authorized service dealer.</li> <li>4. Refer to the Operation Section for proper shifting procedures.</li> <li>5. Replace belt.</li> </ol>
Wheels do not engage	<ol style="list-style-type: none"> <li>1. Nut and bolt missing</li> <li>2. Tiller is not being shifted properly.</li> <li>3. Belt worn and/or stretched.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace nut and bolt.</li> <li>2. Refer to Operation Section for proper shifting procedures.</li> <li>3. Replace belt.</li> </ol>

Component	Part Number and Description
	954-04090 Reverse V-Belt 954-04091 Forward V-Belt
	742-05065 LH Tine 742-05064 RH Tine
	946-04506 Forward Drive Cable 946-04504 Reverse Drive Cable
	634-05054 Tires, 14 x 4.5-6
	714-04043 Cotter Pin, Tine Assembly 911-0415 Clevis Pin, Tine Assembly
	BS-491055S Spark Plug
	BS-493537S Pre-Cleaner BS-491588S Air Filter

Phone (800) 965-4CUB to order replacement parts or a complete Parts Manual (have your full model number and serial number ready). Parts Manual downloads are also available free of charge at [www.cubcadet.com](http://www.cubcadet.com).

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## CUB CADET LLC

### MANUFACTURER'S LIMITED WARRANTY FOR EDGERS, STRING TRIMMERS & TILLERS

The limited warranty set forth below is given by Cub Cadet LLC with respect to new merchandise purchased and used in the United States, its possessions and territories, and by MTD Products Limited with respect to new merchandise purchased and used in Canada and/or its territories and possessions.

This warranty is in addition to any applicable emissions warranty provided with your product.

"Cub Cadet" warrants this product (excluding its *Normal Wear Parts* as described below) against defects in material and workmanship for a period of three (3) years commencing on the date of original purchase and will, at its option, repair or replace, free of charge, any part found to be defective in materials or workmanship. This limited warranty shall only apply if this product has been operated and maintained in accordance with the Operator's Manual furnished with the product, and has not been subject to misuse, abuse, commercial use, neglect, accident, improper maintenance, alteration, vandalism, theft, fire, water, or damage because of other peril or natural disaster. Damage resulting from the installation or use of any part, accessory or attachment not approved by Cub Cadet for use with the product(s) covered by this manual will void your warranty as to any resulting damage.

*Normal Wear Parts* are warranted to be free from defects in material and workmanship for a period of thirty (30) days from the date of purchase. Normal wear parts include, but are not limited to items such as: batteries, belts, blades, tines, wheels and tires.

**HOW TO OBTAIN SERVICE:** Warranty service is available, WITH PROOF OF PURCHASE, through your local authorized service dealer. To locate the dealer in your area:

#### **In the U.S.A.**

To locate the dealer in your area, check your Yellow Pages, or contact Cub Cadet LLC at P.O. Box 361131, Cleveland, Ohio 44136-0019, or call 1-877-282-8684, or log on to our Web site at [www.cubcadet.com](http://www.cubcadet.com).

#### **In Canada**

Contact MTD Products Limited, Kitchener, ON N2G 4J1, or call 1-800-668-1238 or log on to our Web site at [www.mtdcanada.com](http://www.mtdcanada.com).

This limited warranty does **not** provide coverage in the following cases:

- a. The engine or component parts thereof. These items may carry a separate manufacturer's warranty. Refer to applicable manufacturer's warranty for terms and conditions.
- b. Routine maintenance items such as lubricants, filters, blade sharpening, tune-ups, brake adjustments, clutch adjustments, deck adjustments, and normal deterioration of the exterior finish due to use or exposure.

- c. Cub Cadet does not extend any warranty for products sold or exported outside of the United States and/or Canada, and their respective possessions and territories, except those sold through Cub Cadet's authorized channels of export distribution.
- d. Replacement parts that are not genuine Cub Cadet parts.
- e. Service completed by someone other than an authorized service dealer.
- f. Transportation charges and service calls.
- g. Cub Cadet does not warrant this product for commercial use.

**No implied warranty, including any implied warranty of merchantability of fitness for a particular purpose, applies after the applicable period of express written warranty above as to the parts as identified. No other express warranty, whether written or oral, except as mentioned above, given by any person or entity, including a dealer or retailer, with respect to any product, shall bind Cub Cadet. During the period of the warranty, the exclusive remedy is repair or replacement of the product as set forth above.**

**The provisions as set forth in this warranty provide the sole and exclusive remedy arising from the sale. Cub Cadet shall not be liable for incidental or consequential loss or damage including, without limitation, expenses incurred for substitute or replacement lawn care services or for rental expenses to temporarily replace a warranted product.**

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

In no event shall recovery of any kind be greater than the amount of the purchase price of the product sold. **Alteration of safety features of the product shall void this warranty.** You assume the risk and liability for loss, damage, or injury to you and your property and/or to others and their property arising out of the misuse or inability to use the product.

This limited warranty shall not extend to anyone other than the original purchaser or to the person for whom it was purchased as a gift.

**HOW STATE LAW RELATES TO THIS WARRANTY:** This limited warranty gives you specific legal rights, and you may also have other rights that vary in different jurisdictions.

**IMPORTANT:** Owner must present Original Proof of Purchase to obtain warranty coverage.

**Cub Cadet LLC, P.O. BOX 361131 CLEVELAND, OHIO 44136-0019; Phone: 1-877-282-8684**  
**MTD Canada Limited - KITCHENER, ON N2G 4J1; Phone 1-800-668-1238**